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REMARKS

Claims 14 - 49 have been previously withdrawn from further consideration as being drawn to a non-elected invention under 37 C.F.R. § 1.142(b). Claims 50 - 56 are added as new claims. Claims 2, 3 and 5 have been cancelled without prejudice or disclaimer.

Objection to the Drawings

As to the Objection to the Drawings in the Office Action of September 25, 2002, the first of two phrases to which the Examiner objects to has been amended from the claims. More precisely, the language "circuit board attaching means" has been removed from claim 6. In regard to the second phrase to which the Examiner objects to, this phraseology is shown in Figure 16A. More specifically, "projections" are shown as elements 102c and 102d of Figure 16A. It is respectfully requested that the Examiner withdraw this objection as the elements to which the Examiner objects are either shown in the drawings or have been amended from the claims.

I. CLAIM REJECTION UNDER 35 U.S.C. § 102(E)

Claim 6 stands rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S.P. No. 6,130,695 (*Childers*, filed March 4, 1998). For the following reasons, this rejection is respectfully traversed.

Childers fails to teach or suggest the circuit board including a contact face, the contact face being openly exposed in relation to the ink cartridge at least on a plane substantially parallel

to the contact face and a plane substantially perpendicular thereto. Instead, *Childers* teaches a contact face which is not openly exposed. See Figures 4, 7, 10, 11, 12, 13, 14, 15, 16, and 17, and reference numerals 8, 79, 80, 143, 163, 137, 175, 181, 183 and 197, respectively. At least for the foregoing reasons, claim 6 is clearly patentable.

II. CLAIM REJECTION UNDER 35 U.S.C. § 102(A)

Claim 10 stands rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by JP Patent No. 60198256 (the '256 patent, published October 7, 1985). For the following reasons, this rejection is respectfully traversed.

Claim 10 recites that *after* the ink inlet port connection is made, *then* connection is made to a pressurized air inlet port. '256 fails to teach or suggest at least this feature of the instant application. By way of example, while Figure 4 of the '256 patent depicts a hollow needle 22 that appears to be longer in a horizontal direction than air connection port 32, hollow needle 22 connects to ink outlet port 15/45 through a sealing material of substantial length (this material sealing the ink within the ink bag and keeping the ink from escaping around the outer periphery of the needle once the needle has been inserted into the bag). The length of the sealing material within ink outlet port 15/45 necessitates simultaneous connection of the ink outlet port as compared to the pressurized air port due to the length of the sealing material within the ink outlet port.

Additionally, assuming *arguendo* that hollow needle 22 were somehow depicted in the drawings as being long enough to pierce the ink bag sealing material prior to the air port being

connected, proportions of features in a drawing are not evidence of actual proportions unless drawings are specifically disclosed as being to scale. *See* M.P.E.P. § 2125. Moreover, the specification of '256 clarifies that connection of the air port and ink port is committed simultaneously. Just prior to [Effect of Invention] on page 17 of the English translation of '256, it is stated that the connection of the ink and air ports is "completed at once." Accordingly, the reference is deficient in at least not teaching or suggesting that the ink port is connected prior to the pressurized air port. Since the '256 patent fails to teach or suggest the above features, claim 10 is clearly patentable.

III. CLAIM REJECTION UNDER 35 U.S.C. § 103(A)

Claims 1 - 4, 7 - 9, and 11 - 13 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the '256 patent in view of U.S.P. No. 5,666,146 (*Mochizuki*, filed August 25, 1994) and *Childers*. For the following reasons, this rejection is respectfully traversed.

The Examiner notes in the Office Action of September 25, 2002, that claim 5 contains allowable subject matter. Since Applicant has amended claim 1 to include the allowable subject matter, claim 1 is clearly patentable.

As to claim 4, claim 4 is patentable at least by virtue of dependency upon claim 1.

As to claims 7 - 9, such claims depend upon claim 6. As to claim 6: *Childers*, the '256 patent and *Mochizuki*, whether taken together or in combination, fail to teach or suggest a circuit board including a contact face, the contact face being openly exposed in relation to the ink cartridge at least on a plane substantially parallel to the contact face and a plane substantially

perpendicular thereto. Indeed, the '256 patent and *Mochizuki* are silent as to the element of a circuit board or a contact face, while *Childers* requires that the plane substantially parallel to the contact face be obstructed, for example, by members 143 or 163 of Figures 11 and 12, respectively. Accordingly, claim 6 is clearly patentable, as are dependent claims 7 - 9. *See* Part I.

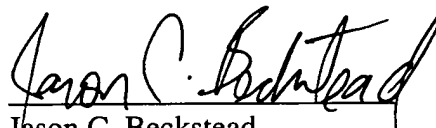
As to claims 11 - 13, such claims depend upon claim 10. As to claim 10: *Childers*, the '256 patent and *Mochizuki*, whether taken together or in combination, fail to teach or suggest the ink port being connected prior to the air port being connected, as discussed above in relation to claim 10. Accordingly, claim 10 is clearly patentable, as are dependent claims 11 - 13. *See* Part II.

IV. CONCLUSION

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 2, 3 and 5 are canceled without prejudice or disclaimer.

The claims are amended as follows:

1. (Amended) An ink cartridge for use with a recording apparatus, which comprises an ink pack formed from flexible material and sealingly storing ink therein, and a cartridge case housing the ink pack and formed hermetically, and which is so constructed that pressurized air is introduced into the case in a mounted state to the recording apparatus, wherein

on one surface of the cartridge case, there are provided positioning means used when the cartridge is mounted to the recording apparatus, an ink outlet port from the ink pack, an inlet port for the pressurized air, and a connection terminal of a circuit board having data storage means;

the positioning means being constructed by an opening hole formed so as to surround a positioning pin arranged in the recording apparatus;

the opening hole constituting the positioning means arranged at each of two locations along a longitudinal direction on the one surface of the case; and

the connection terminal of the circuit board and the inlet port for the pressurized air being respectively arranged outside the opening holes arranged at the two locations.

4. (Amended) An ink cartridge for use with a recording apparatus according to claim [3] 1, wherein the ink outlet port from the ink pack is arranged substantially in a center between the opening holes arranged at the two locations.

6. (Amended) An ink cartridge for use with a recording apparatus, the ink cartridge including [which comprises] a circuit board having data-readable storage means in which ink information can be stored, the ink cartridge being [and which is] removably mounted to the recording apparatus, wherein

[the circuit board is attached to a cartridge case within a box-shaped space, two surfaces of which intersect at right angles and are opened];

[means for attaching] the circuit board further includes a contact with a contact face, the contact face being openly exposed in relation to the ink cartridge at least on a plane substantially parallel to the contact face and a plane substantially perpendicular thereto [is exposed toward one of the opened surfaces]; and

when the ink cartridge is mounted to the recording apparatus the circuit board contact electrically connects to the recording apparatus [a terminal mechanism arranged on the recording apparatus is electrically connected to the circuit board through the other of the opened surface in a state where the cartridge is mounted to the recording apparatus].

7. (Amended) An ink cartridge for use with a recording apparatus according to claim 6, wherein the circuit board [attaching means is constructed by a projection for heat-welding, which is formed integrally with the cartridge case] is attached to the ink cartridge via heat welding.

8. (Amended) An ink cartridge for use with a recording apparatus according to claim 7, wherein the [circuit board is attached to the cartridge case such that the projection for heat welding is passed through a part of the circuit board and a top of the projection is heat-caulked] heat welding forms projections in the ink cartridge to which the circuit board is mounted.

Claims 50 - 56 are added as new claims.